

20 May 2014

Empyrean Energy PLC ('Empyrean' or 'the Company')**MAJOR UPGRADE TO SUGARLOAF AMI RESERVES AND RESOURCES**

- **Proven Reserves (1P) up 54% to 3.54 MMboe**
- **Probable Reserves up 43% to 2.98 MMboe**
- **Proven plus Probable Reserves (2P) up 48% to 6.52 MMboe**
- **Proven plus Probable plus Possible Reserves (3P) of 8.92 MMboe**
- **New 2C Contingent Resources of 3.87 MMboe – extensive Austin Chalk potential reflected in this category**
 - **Subject to the success of further appraisal (see RNS dated 12.02.14), Marathon plans to co-develop Austin Chalk with potential for approximately 260 wells based on 60 acre spacing and more if 40 acre spacing proves optimal for Austin Chalk wells**
- **2P Reserves plus 2C Resources of 10.39 MMboe**
- **NPV (10) of 1P Reserves valued in report at approximately US\$52.9 million**
- **NPV (10) of 2P Reserves valued in report at approximately US\$97.0 million**
- **NPV (10) of 3P Reserves valued in report at approximately US\$139.5 million**
- **128 wells in production at the Project with Marathon currently targeting to drill approximately 100 gross wells during 2014 - estimated to require more than 500 wells, based on 40 acre spacing, to fully develop the Eagle Ford Shale**
- **Greater than 90% of revenue coming from liquids production**

Empyrean, the profitable US onshore oil, gas and condensate exploration, development and production company with assets in Texas and California, is pleased to announce a significant increase in its Reserves and Resources at its flagship Sugarloaf AMI asset ('the Project') in the liquids rich core of the Eagle Ford Shale in Texas, USA, following the receipt of an independent appraisal and report prepared by DeGolyer & MacNaughton.

The Project, in which Empyrean has a 3% working interest ('WI'), is operated by Marathon Oil Company, a subsidiary of US major Marathon Oil Corporation (NYSE: MRO) ('Marathon' or the 'Operator'). The figures below represent the Barrels of Oil Equivalent Reserves and Resources attributable to Empyrean's WI in the Project.

Sugarloaf AMI (EME 3%, net 2.25% after royalties)	Revised 31 Dec 2013 MMboe	Reported as at 1 Sept 2012 MMboe	Increase %
1P Reserves	3.54	2.32	53
2P Reserves	6.52	4.40	48
3P Reserves	8.92	New	New
2C Contingent Resources	3.87	New	New
2P + 2C	10.39	New	New

Empyrean CEO Tom Kelly said, “This outstanding reserve upgrade gives further evidence of the current attributable value at our flagship Sugarloaf AMI Project as well as its excellent long term potential. The upgraded Reserves have come on the back of success from optimisation initiatives such as well down spacing, pad drilling, new improved fracing techniques, reduced drilling and completion cycle times and recovery from recent wells outperforming earlier wells.”

“The Reserves are predominantly comprised of Eagle Ford Shale locations with the bulk of the Austin Chalk potential currently reflected as a 2C Contingent Resource. However, as previously disclosed, Marathon plans to co-develop the Austin Chalk formation with the Eagle Ford Shale, subject to further successful appraisal. Approximately 260 Austin Chalk well locations have been identified based on 60 acre spacing with 40 acre spacing already successful for the Eagle Ford Shale and now being trialled by Marathon for the Austin Chalk. The early Austin Chalk wells are performing very similarly to the Eagle Ford Shale wells and this Contingent Resource provides excellent short term upside to convert directly to Proven and Probable Reserves as further appraisal wells are currently being drilled and scheduled.”

“The Net Present Value calculations further confirm the Board’s observations that the Sugarloaf AMI is an excellent high value asset that is demonstrably in demand given recent transactions both within the greater field and the Sugarloaf AMI acreage itself.”

The independent report by DeGolyer & MacNaughton reflects the future development potential of the Eagle Ford shale play and the Austin Chalk play, based on provisional development plan assumptions. Evaluation of the future development potential of the Eagle Ford is based on the Operator’s advice of 40-acre well spacing, with more than 500 well locations, while the Austin Chalk is based on 60-acre well spacing and over 260 well locations. Empyrean’s Reserves estimate reflects 100% of potential Eagle Ford well locations and 6% of potential Austin Chalk well locations. The remaining 94% of potential Austin Chalk well locations are captured in the Company’s 2C Contingent Resources.

A summary of the Reserves and Contingent Resources, calculated on a 2.25% Net Revenue Interest (‘NRI’) basis after royalties, and the Net Present Value using a 10% discount rate (‘NPV(10)’) as at 31 December 2013 and included in the DeGolyer MacNaughton report is contained in the table below:

	Oil & Condensate MMBLS	Natural Gas Liquids MMBLS	Sales Gas MMcf	Barrels of Oil Equivalent MMboe	NPV(10)US\$ million
1P Reserves	1,542	835	6,999	3.544	52.9
2P Reserves	2,649	1,636	13,420	6.521	97.0
3P Reserves	3,486	2,302	18,768	8.915	139.5
2C	1,094	1,189	9,509	3.868	-

The prices used in the Reserve Report were based upon NYMEX strip prices for oil and gas on 1 January 2014. The following table shows the basic pricing assumptions used:

Year	Oil Price US\$/barrel	Gas Price US\$/MMBTU
2014	93.19	3.56
2015	92.36	4.03
2016	90.26	4.23
2017	88.29	4.42
2018 and thereafter	86.88	4.63

Further information and data assumptions:

Australian Stock Exchange (‘ASX’) listed AWE Limited (‘AWE’), a partner in the Project, was responsible for the co-ordination of the report with DeGolyer MacNaughton and provided the following further supplemental information within which any reference to AWE can be read to include Empyrean’s agreement to such explanation or assumption and also refers to a previous independent assessment that AWE had prepared by DeGolyer MacNaughton as at 31 December 2012 that Empyrean was not involved in:

“Explanations as to the basis of the above tabulated Reserves and Contingent Resources

1. The assessment of Reserves and Contingent Resources is in accordance with the SPE-PRMS (2011) methodology and associated guidelines for unconventional (Shale) Petroleum Resources;
2. A Deterministic method has been adopted to estimate Reserves and Contingent Resources in this (and the previous referenced) assessment;
3. The reported figures have been aggregated from estimates for individual existing and future wells on an arithmetic basis in each Reserve or Contingent Resource category (rather than a probabilistic aggregation);
4. The Reference Point used for measuring and assessing the estimated Reserves and Contingent Resources are the custody transfer points where the Sales Gas, Natural Gas liquids and Condensate/Oil are sold.
5. The Evaluation Date for the current assessment is 31 December 2013.

Explanations as to reasons for the above reported revisions to Reserves and Contingent Resources

The revisions to the Reserves and Contingent Resources as reported above result substantially from the following new data and information:

1. An updated Eagle Ford development plan wherein AWE and EME assume Eagle Ford drilling will be at 40 acre well spacing rather than the previously assumed 60 acre spacing (The Operator has announced Eagle Ford drilling in certain areas at spacing as low as 30 acres);
2. Re-categorising a number of drilling locations (as between Proved Developed, Proved Undeveloped, Probable or Possible) as a result of additional wells having been drilled throughout the Sugarloaf AMI over the course of calendar 2013. (Note that under SPE-PRMS (2011) Guidelines for Shale Petroleum Resources, drilling locations are categorised as Proved, Probable or Possible based on their spacing from existing developed well locations. Proved locations contribute to 1P, 2P and 3P Reserves, Probable locations contribute to 2P and 3P Reserves and Possible locations contribute only to 3P Reserves);
3. Updated 1P, 2P and 3P type curves for four separate subregions of the AMI based on additional performance data from a larger population of producing wells and an additional year of production data. Predominantly, the revised type curves indicate higher reserves per well than was indicated by the type curves used in the previous assessment.
4. Revised economic assumptions including:
 - a. Updated forecast costs based on recent historic costs and trends;
 - b. Updated product pricing, with oil, condensate and NGL prices based on the NYMEX strip price for WTI oil as at the Evaluation Date, with differentials to account for product quality and regional pricing factors. NGLs are assumed to sell for one third the price of oil (previously approximately one half) on a per BOE basis. Natural gas prices are based on the NYMEX strip price as at the Effective Date for natural gas at Henry Hub, with a differential to reflect the local delivery point.
5. As at the Evaluation Date, three Austin Chalk wells had been drilled in the Sugarloaf AMI, one of which had commenced production. (Subsequently a further four Austin Chalk wells have been drilled.) The Operator is using the current phase of Austin Chalk appraisal drilling to establish the commercial viability of a full scale development of this resource. Consequently AWE and EME have for the current assessment defined an Austin Chalk development plan assuming a 60 acre well spacing (282 locations), and categorised the majority of this area away from existing wells (263 locations) as supporting Contingent Resource rather than Reserves. DeGolyer & MacNaughton accepted this as the basis for the current assessment. This compares to the previous assessment for which DeGolyer & MacNaughton assumed 100 Austin Chalk locations all of which were ascribed Contingent Resources).”

Participants in the Sugarloaf AMI include (gross working interest basis):

Marathon Oil (Operator)	55%
Aurora Oil & Gas Limited	28.1%
AWE Limited (via subsidiaries)	10%
Empyrean Energy PLC	3%
Texas Crude Energy	2.9%
Others	1%

Abbreviations

M- thousand

MM- million

MMBBLs – million barrels

Mcf – thousand cubic feet

MMcf – million cubic feet

MMBTU – million British Thermal Units

NYMEX – New York Mercantile Exchange

The information contained in this announcement was completed and reviewed by the Technical Director of Empyrean Energy Plc, Mr Frank Brophy BSc (Hons) who has over 40 years experience as a petroleum geologist.

****ENDS****

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Notes to Editors:

Empyrean Energy Plc is an AIM listed (Ticker: EME) profitable US on-shore oil and gas development and production company focussed primarily on the advancement of its assets in Texas and California. The Company's portfolio represents a mix of assets at various stages of development. Its flagship project is the Sugarloaf AMI in the prolific Eagle Ford Shale, Texas, where it has a 3% working interest in approximately 24,000 gross acres (approximately 720 net acres) centrally positioned in the liquids rich sweet-spot within the field. Empyrean has an interest in over 128 gross producing wells with full development expected to reach over 500 wells and further upside potential from additional formations and closer well spacing. The Company has a term debt facility of up to US\$50 million with Macquarie Bank in place in order to develop this acreage which is operated by US major Marathon Oil Company.

Other assets include a 57.2% interest in the Eagle Oil Pool Development Project located in the San Joaquin Basin, southern California, a proven oil and gas province. Empyrean's large working

interest in this project provides the Company with flexibility and leverage with potential high impact from success. Additionally, Empyrean has a 7.5% interest in the Sugarloaf Block A operated by ConocoPhillips in the Eagle Ford Shale, and a 10% working interest in the Riverbend Project in Texas currently producing from the Wilcox formation.